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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,336	01/06/2006	Kazuhiro Ono	P27943	3742
7055 7590 08/07/2009 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER				
ROBERTS, LEZAH				
ART UNIT		PAPER NUMBER		
1612				
NOTIFICATION DATE		DELIVERY MODE		
08/07/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/535,336

Applicant(s)

ONO ET AL

Examiner

LEZAH W. ROBERTS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicants' arguments, filed April 30, 2009, have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims

Claim Rejections - 35 USC § 103 – Obviousness (Previous Rejection)

1) Claims 1, 4 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over in Melman (US 2002/0156130) in view of Oriza (JP 2000-239136). The rejection is maintained.

Applicant's Arguments

Applicant argues that a *prima facie* case of obviousness has not been made and a declaration has been submitted to show unexpected advantages associated with the recited combination of glycolic acid and polyphenol. When glycolic acid and polyphenols are used in combination, 50% of dental calculus is removed in 6 minutes as opposed to

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44% in 9 and 50% in 105 minutes with glycolic acid and polyphenol respectively.

Applicant has further amended the claims to recite "the *Perilla frutescen var. crispa* polyphenols and glycolic acid being present as a combination of active ingredients in an amount effective to achieve dissolving of dental calculus".

Applicant further asserts that the preferred acid in Melman is acetic acid. There would be no motivation to combine glycolic acid with *Perilla frutescen var. crispa* when Melman does not even appear to disclose an exemplary use of glycolic acid.

Examiner's Response

In regards to the unexpected results, the claims are still not commensurate in scope with the instant claims. Applicant has asserted that the results have a synergistic effect because better results were seen when glycolic acid and a polyphenol from *Perilla frutescen var. crispa* were combined in comparison with the results obtained by each of them separately. Although this appears to be the case the results do not encompass the claims as recited presently. The claims read on *Perilla frutescen var. crispa* as a plant in water. Further, the claims read on any polyphenol contained in the plant. It cannot be determined if the results obtained would be the same using different polyphenols from the *Perilla frutescen var. crispa* species. The results only support the specific extract obtained by Meiji Seika Kaisha, Ltd. In regards to the recitation of "an effective amount" of polyphenol in the water, it does not necessarily mean that the polyphenols are available for removing the dental calculus to the extent seen in the declaration wherein the polyphenols appear to be extracted from the plant.

In regards to glycolic acid not being the main acid in Melman, the reference suggests using glycolic acid and discloses "any pharmaceutically acceptable salts of the above acids are equally suitable" (paragraph 0017). Thus, one of ordinary skill in the art would be motivated you use a combination of glycolic acid with the extracts of Oriza to remove tartar.

2) Claims 3, 6 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Melman (US 2002/0156130) in view of Oriza (JP 2000-239136) as applied to claims 1 and 4 and 5, in further view of Zhu (WO 01/17494) and Tagashira et al. (JP409295944). The rejection is maintained.

Applicant's Arguments

Applicant argues the Examiner has used improper hindsight in combining Melman, Oriza, Zhu and Tagashira et al. Applicant also asserts unexpected results.

Examiner's Response

See Examiner's Response above in regards to unexpected results and claim 1 rejected over Melman in view of Oriza. In regards to the Examiner's using hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. It would have been obvious to combine the teachings of Melman and Oriza because they both disclose compositions for removing tartar or calculus from the teeth. In regards to Zhu and

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Tagashira, one of ordinary skill in the art would recognize the benefits of using polyphenols from different sources that are disclosed to treat conditions of the teeth such caries and calculus and therefore motivating one to add these polyphenols to the compositions of the combined teachings of Melman and Oriza.

Claims 1 and 3-7 are rejected.

No claims are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEZAH W. ROBERTS whose telephone number is (571)272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick F. Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lezah W Roberts/
Examiner, Art Unit 1612

/Frederick Krass/
Supervisory Patent Examiner, Art Unit 1612